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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,349	09/25/2003	Rainer Kirchhuel	BTK Case 377	7123
23474	7590	01/18/2006	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631			LAVARIAS, ARNEL C	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,349

Applicant(s)

KIRCHHUEBEL, RAINER

Examiner

Arnel C. Lavarias

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/7/05, 6/27/05, 12/15/03, 9/25/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4 and 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/25/03, 6/27/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The Applicant's election without traverse of Invention II (Claims 5-10) in the reply filed on 11/7/05 is acknowledged.
2. Claims 3-4, 11-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/7/05.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 10/11/02. It is noted, however, that applicant has not filed a certified copy of the 202 15 635.4 application as required by 35 U.S.C. 119(b).

Drawings

4. The originally filed drawings were received on 9/25/03. The replacement formal drawings were received on 6/27/05. These drawings are objected to for the following reason(s) as set forth below.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
Figure 1- Reference numeral 29 (See Paragraph 0025).

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "24" has been used to designate both the drive motor and a magnetic coupling (See Paragraph 0032). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The disclosure is objected to because of the following informalities:

Paragraph 0006, line 2- 'adjusted' should read 'adjustment'

Paragraph 0015, line 3- 'magnifiers Preferably,' should read 'magnifiers. Preferably,'

Paragraph 0035, line 8- '25' should read '25a'.

Appropriate correction is required.

Claim Objections

8. Claims 1-2, 5-10 are objected to because of the following informalities:

Regarding Claims 1 (lines 4, 6, 7, 11), 6 (line 3), and 9 (line 4), the phrase "can be" renders the claim unclear because it is not certain whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For purposes of examination, 'can be' has been interpreted to mean 'is/are', and the Examiner has assumed that the limitations following "can be" are positively recited. Claims 2, 5-10 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

Claim 1 recites the limitation "the device" in line 11. There is insufficient antecedent basis for this limitation in the claim. In particular, it is not clear which device is being referred to here. For purposes of examination, this limitation has been interpreted to mean 'the removable optical device'. Claims 2, 5-10 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 1, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhuebel (U.S. Patent Application Publication US 2002/0044256 A1), of record, in view of Spitznas et al. (U.S. Patent No. 4856872), of record, and Hsia (U.S. Patent No. 5394043).

Kirchhuebel discloses the following: In a removable optical device (See 7 in Figure 1) for releasable attachment to a microscope (See 1 in Figure 1) suitable for contact-free observation of an eye (See A in Figure 1) with at least one lens (See 8 in Figure 1), which is arranged between an objective (See 4 in Figure 1) of the microscope and the eye in the optical axis (See 6 in Figure 1) of the microscope and is adjusted with a drive device (See 21, 20, 16 in Figure 1), with which the lens is adjusted along the optical axis of the microscope, the improvement wherein the removable device is detachable from the microscope and sterilized by a suitable method (See Paragraph 0027). Kirchhuebel lacks an electric drive motor being integrated with the removable device so as to also be detachable from the microscope and sterilized by a suitable method. However, Spitznas et al. teaches a conventional attachment for a microscope system (See for example Figures 1-3, 8-9), wherein the attachment (See 13 in Figure 3) is removable from the microscope system and includes an integrated drive motor (See for example 15 in Figure

3), which is detachable with the attachment. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have an electric drive motor be integrated with the removable device and be detachable with the removable device, as taught by Spitznas et al., in the removable optical device of Kirchhuebel, for the purpose of directly providing the rotary motion of the motor to the attachment, eliminating extraneous parts and items needed to transmit such rotary motion, such as drive belts, flexible drive shafts, and flexible couplings, which increase the cost of the system. The combined teachings of Kirchhuebel and Spitznas et al. lack the motor also being sterilized by a suitable method. However, electric drive motors that are able to withstand sterilization by particular sterilization methods are known in the art. For example, Hsia teaches a conventional high speed D.C. brushless motor (See Abstract; Figure) that may be integrated within various surgical and dental instruments. In particular, such motor is constructed in a way that the entire motor may withstand sterilization by autoclaving processes (See col. 1, lines 42-66; col. 5, lines 3-40). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the motor also be sterilized by a suitable method, as taught by Hsia, in the removable optical device of Kirchhuebel and Spitznas et al., for the purpose of preventing damage and/or failure of the motor, while allowing for disinfection of the motor and removable optical device simultaneously.

11. Claim 2, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhuebel in view of Spitznas et al. and Hsia as applied to Claim 1 above, and further in view of Hogan (U.S. Patent No. 5554896).

Kirchhuebel in view of Spitznas et al. and Hsia discloses the invention as set forth above in Claim 1, except for the drive motor being arranged in a housing which encloses the drive motor against the surrounding environment in a manner sealed from gases and moisture. However, such hermetic sealing of a motor using a housing is known in the art. For example, Hogan teaches a conventional power supply and motor system for use in portable systems for dental, surgical, and industrial handpieces (See for example Figures 2-4; Abstract). In particular, the motor system utilizes a motor (See for example 46 in Figures 3-4) that is hermetically sealed within a housing (See for example 38 in Figure 3; 90 in Figure 4; col. 4, lines 4-64). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the drive motor be arranged in a housing which encloses the drive motor against the surrounding environment in a manner sealed from gases and moisture, as taught by Hogan, in the removable optical device of Kirchhuebel in view of Spitznas et al. and Hsia, for the purpose of reducing or eliminating maintenance requirements, while allowing the motor to be autoclavable between uses without damage or failure.

12. Claims 5-7, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan.

Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan discloses the invention as set forth above in Claims 1-2, except for the housing having a through opening for passage of an electrical cable, which is gas and moisture sealed by a sealing means, such as a sealing ring attached with a suitable attachment means in a

sealing gap between the housing and the electrical cable, against the surrounding environment, and the end of the electrical cable includes a plug suited for sterilization. However, Hogan additionally discloses that the housing for the motor (See Figures 3-4) includes a through opening (See 62, 68 in Figure 3) for passage of an electrical cable (See col. 4, lines 41-52), which is gas and moisture sealed by a sealing means, such as a sealing ring (See for example 64 in Figure 3) attached with a suitable attachment means (See col. 4, lines 19-31) in a sealing gap between the housing and the electrical cable, against the surrounding environment. Additionally, the end of the electrical cable includes a plug suited for sterilization (See 44 in Figure 3; col. 4, lines 19-52). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a through opening for passage of an electrical cable, which is gas and moisture sealed by a sealing means, such as a sealing ring attached with a suitable attachment means in a sealing gap between the housing and the electrical cable, against the surrounding environment, and the end of the electrical cable includes a plug suited for sterilization, as additionally taught by Hogan, in the removable optical device of Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan, for the purpose of allowing electrical power to be passed from the external power supply to the internal, hermetically sealed motor, while preventing de-sterilization of the motor and internal housing parts.

13. Claim 8, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan.

Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan discloses the invention as set forth above in Claims 1-2, except for at least one hollow chamber in the interior of the housing being lined with a hardened sealing compound. However, Hsia additionally teaches that such conventional motors may include interior hollow spaces (See for example 142, 144, 146 in Figure), and that various locations within the interior hollow spaces may include a hardened sealing compound to protect various vulnerable items within the motor (See col. 3, line 45-col. 4, line 8). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have at least one hollow chamber in the interior of the housing be lined with a hardened sealing compound, as additionally taught by Hsia, in the removable optical device of Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan, for the purpose of protecting vulnerable items within the motor from damage or failure during sterilization.

14. Claim 10, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan.

Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan discloses the invention as set forth above in Claims 1-2, except for the housing being made from at least two housing parts connected to one another in a gas- and moisture-sealed manner. However, Hogan additionally teaches that the housing (See Figures 3-4) for hermetically sealing the motor from the environment may include two housing parts (See for example 38, 40 in Figure 3), which are connected together to form a hermetic seal (See col. 4, lines 19-39). Thus, it would have been obvious to one having ordinary

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skill in the art at the time the invention was made to have the housing be made from at least two housing parts connected to one another in a gas- and moisture-sealed manner, as additionally taught by Hogan, in the removable optical device of Kirchhuebel in view of Spitznas et al. and Hsia, and further in view of Hogan, to allow access to the internal housing components, including the motor, when service or maintenance is required.

Allowable Subject Matter

15. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:

Claim 9 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a removable optical device including an electric drive motor, as generally set forth in Claims 1-2, 8-9, the device including, in combination with the features recited in Claims 1-2, 8-9, the housing having at least one fill opening through which the sealing compound is filled in the housing after mounting of the drive motor in the housing.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias
Patent Examiner
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1/17/06